Message

From: Takaba, Richard R [richard.takaba@doh.hawaii.gov]

Sent: 5/21/2016 2:56:13 AM

To: Linder, Steven [Linder.Steven@epa.gov]; Pallarino, Bob [Pallarino.Bob@epa.gov]
CC: steven.chang@doh.hawaii.gov; roxanne.kwan@doh.hawaii.gov; Whittier, Robert

[Robert.Whittier@doh.hawaii.gov]; Frazier, William Mark [william.frazier@doh.hawaii.gov]; Heu, Randall

[randall.heu@doh.hawaii.gov]; joanna.seto@doh.hawaii.gov

Subject: FW: MF comments to Navy RH wk plan (5-17-16)

Attachments: 4-27-16 MWInstall WP RHSF_w-highlights-III.pdf; RBW Comments on Well Installation Work Plan.docx

From: Whittier, Robert

Sent: Wednesday, May 18, 2016 10:01 AM

To: Takaba, Richard R <richard.takaba@doh.hawaii.gov>; Frazier, William Mark <william.frazier@doh.hawaii.gov>; Heu,

Randall <randall.heu@doh.hawaii.gov>

Subject: Re: MF comments to Navy RH wk plan (5-17-16)

Rich et al.,

Attached is my marked up version of the Well Installation Work Plan and a Word document with the issues that I feel are most important. The biggest weakness is the TOC surveying. The only way the Navy can come up with a defensible groundwater gradient that will answer the concerns raised by the 2010 Tier III re-eval and by the HBWS is to have an accurate TOC elevation survey of the entire observation well network. Given, that is a tall order, but they knew the job was dangerous when they took it!

Bob W.

From: Takaba, Richard R

Sent: Wednesday, May 18, 2016 9:12 AM

To: Whittier, Robert; Frazier, William Mark; Heu, Randall **Subject:** RE: MF comments to Navy RH wk plan (5-17-16)

Thanks Bob, let's send out analysis on Friday am, I'll try to finish by Thursday

Rich

From: Whittier, Robert

Sent: Tuesday, May 17, 2016 4:02 PM

To: Frazier, William Mark <william.frazier@doh.hawaii.gov>; Takaba, Richard R <richard.takaba@doh.hawaii.gov>; Heu,

Randall <randall.heu@doh.hawaii.gov>

Subject: Re: MF comments to Navy RH wk plan (5-17-16)

Rich and Mark,

Should have my Well Installation comments by tomorrow. Should have 6&7 by the end of the week.

From: Frazier, William Mark

Sent: Tuesday, May 17, 2016 12:15:50 PM

To: Takaba, Richard R; Whittier, Robert; Heu, Randall **Subject:** MF comments to Navy RH wk plan (5-17-16)

Comments are made in PDF and ranked by blue for general, yellow for high priority and red for most important.

My big comments are:

- Collect/test fine grained sediments not limit to soil only when contamination detected
- > Bad well construction, data has potential neg bias, mark as such on all future reports
- > Water samp intake at 10 feet-to deep, change to 2-5 feet depth
- ➤ Discreet sediment sample technique is unclear to me. Not encore style (5g), yet 100g to be collected plus methanol. Total volume of jars will need 557g of soil total, 105g for VOC, approximately.

Mark Frazier
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